

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 07-236650

(43)Date of publication of application : 12.09.1995

(51)Int.Cl. A61F 5/44
A61F 13/15
A61F 13/54
A41B 13/04

(21)Application number : 06-030349

(71)Applicant : TOYO EIZAI KK

(22)Date of filing : 28.02.1994

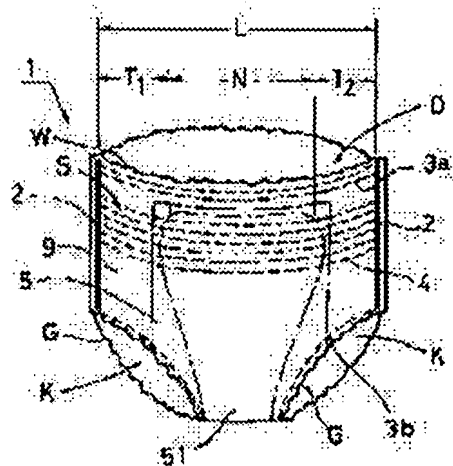
(72)Inventor : MATSUURA IWAO
MORIURA OSAMU
NAKAOKA KENJI

(54) THROWAWAY SHORTS

(57)Abstract:

PURPOSE: To provide throwaway shorts which are provided with an elastic member used in a throwaway shorts body part in side directions continuously and an inside folding and a position shift of a absorbing body are not generated and has an excellent appearance.

CONSTITUTION: A throwaway shorts are such one that an elastic member 4 for body gathering attached at a central part N under a virtually non-extended condition corresponding to an absorbing body arranged site, and attached only to both left and right sides T1, T2 in an extended condition.



LEGAL STATUS

[Date of request for examination] 20.04.1995

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 2602408

[Date of registration] 29.01.1997

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] About the disposable trousers in which the drum section gathers which give a feeling of a fit to a drum section were formed, the flexible force of an elastic body acts on a detail only in the need part of drum section gathers, and this invention relates to good-looking disposable trousers.

[0002]

[Description of the Prior Art] In disposable trousers, as a configuration for sticking this to a wearer's drum section A means to form the sheet material which forms trousers with flexible materials, such as an elasticity nonwoven fabric, Or elastic yarn (for example, the "operon" by Du Pont-Toray), an elastic band, etc. are installed in the waist gathers section and abbreviation parallel between opening for the waists, and opening for the legs (both are synthesized below and it is only called an elastic member), and a means to form drum section gathers in a non-elasticity sheet is considered. The disposable trousers which the latter was low cost, for example, pasted up the elastic member of an elongation condition between the backseat and the top sheet, and formed drum section gathers in the location where waist gathers are equivalent to JP,4-166150,A or JP,4-289201,A caudad said waist gathers section and parallel, or in the shape of a loop formation are indicated among these.

[0003] By the way, the elastic member for the above-mentioned drum section gathers will be arranged over the perimeter of the circumference of a wearer's drum section, when it considers as disposable trousers. Since it is prepared in the trousers center section, covering [of disposable trousers] it back from an abdomen, also in the part to which an absorber exists, this elastic member is prepared in the state of telescopic motion, and it becomes things. For this reason, it was easy to transform an absorber according to the shrinkage force of an elastic member, accordion-fold [of an absorber] and a location gap were caused, and the problem which causes trouble was in absorption of the urine which is the original purpose of disposable trousers.

[0004] Then, in the trousers center section in which an absorber exists, the elastic member for drum section gathers was not pasted up, but the elastic member was cut in this part, and it was possible to form flexible gathers only in a drum side part. However, in order to cut an elastic member, without damaging a base material sheet, productivity had to be reduced at the sacrifice of manufacture speed. The edge of the cut elastic member remains danglely in the location of an indeterminate, and an appearance is made to fall remarkably in what furthermore cut the elastic member and pasted up the elastic member only on the right-and-left side part. Moreover, it was also difficult on manufacture to paste up the elastic member cut short beforehand only on a drum side part in the state of expanding.

[0005]

[Problem(s) to be Solved by the Invention] The purpose of this invention is to offer the disposable trousers which were excellent in the appearance configuration, without producing accordion-fold [of an absorber], and a location gap by this elastic member, following a longitudinal direction and installing an elastic member in the drum section of disposable trousers.

[0006]

[Means for Solving the Problem] In the disposable trousers which the disposable trousers of this invention which attained the above-mentioned purpose installed two or more elastic members in the longitudinal direction between opening for the waists, and opening for the legs, and formed drum

section gathers, said elastic member has a summary at the place pasted up so that it may be pinched between the backseats of two sheets located in the outermost layer of disposable trousers and this elastic member may have a condition [of not elongating] part, and an elongation condition part. That to which a condition [of not elongating] part is located in the abdomen side center section of disposable trousers, and the thing to which a condition [of not elongating] part is located in the back side center section of disposable trousers are the desirable embodiments of this invention further.

[0007]

[Function] The disposable trousers of this invention paste up the elastic member for drum section gathers on the condition of not elongating, substantially in the center section equivalent to an absorber arrangement part the abdomen of trousers, and/or in back, and paste it up in the state of elongation in the right-and-left both-sides section. Gathers being formed in the flank of trousers which should give a feeling of a fit to a drum section, a shrinkage force not acting on an absorber, since the abdomen or the central part in back is pasted up in the condition in which the elastic member loosened of having not contracted, but producing accordion-fold and a location gap in an absorber by adoption of this configuration, was lost. Moreover, since this elastic member has also pasted up the part in the condition of not elongating on the backseat in the shape of a straight line, an appearance maintains a beautiful condition.

[0008] Although it is desirable to prepare in an abdomen and/or a center section in back as mentioned above as for a condition [of not elongating] part, it can also make the trousers both-sides section the condition of not elongating. In this case, it can use that the both-sides section is bound tight suitable for the wearer who is not fond, and the wearer who has damage in the body part equivalent to the both-sides section.

[0009]

[Example] Drawing 1 is the transverse-plane explanatory view showing the typical example of this invention disposable trousers, and showed the fracture dismantling explanatory view in part to drawing 2. The disposable trousers 1 have formed the openings K and K for the legs of a pair in the lower part while it is joined by the adhesion lines 2 and 2 and the right-and-left edge forms the opening D for the waists in the upper part. Intermittent adhesion of the shape of yarn and the band-like elastic members (the product made of natural rubber or the product made of synthetic rubber, for example, the "operon" by Du Pont-Toray) 3a and 3b is carried out in the state of elongation, and the waist gathers section W and the leg gathers section G are formed in the perimeter of the opening D for the waists, and the opening K for the legs.

[0010] As shown in drawing 2, elastic members 3a, 3b, and 4 paste up the structure of these disposable trousers 1 among the sheets 9 and 9 of two sheets which constitute the laminating backseat of the outermost layer. Nonwoven fabrics, such as soft polypropylene of aesthetic property, polyethylene, polyester, and rayon, are preferably used for the sheets 9 and 9 of these two sheets. It is desirable to give a water-repellent finish to at least one side of sheets 9 or 9.

[0011] The laminating of the absorption body 5 is carried out to the top face of a sheet 2. The lowest layer of the absorption body 5 is the non-liquid-permeable nature sheet 50 which consists of plastic film etc., and the rear face pastes it up with the top sheet 9 of the above-mentioned backseat. On the non-liquid-permeable nature sheet 50, while the absorption mat 51 fabricated with grinding pulp, a water-absorbing resin, the thermoplastics for shape retention, etc. piles up, on it, the laminating of the liquid-permeable sheet 54 (generally said nonwoven fabric or hole vacancy plastic film etc. is adopted) in contact with a direct wearer is carried out further. In addition, an elastic member is installed in a single-sided side edge, to the right-and-left side edge on the above-mentioned liquid-permeable sheet 54, it is desirable to arrange the solid gathers 52 of the pair of a configuration as the side side edge else has pasted the liquid-permeable sheet 54 or the non-liquid-permeable sheet 50, and it can prevent the excrement exsorption from the leg certainly by this to it. Moreover, although the central part of the absorption mat 51 is made into the structure of what formed projected part 51a along with the trousers longitudinal direction being shown, and attaining quick positive absorption prehension of excrement, in the example of drawing, this invention is not limited to this and may adopt the absorption mat of an arbitration configuration.

[0012] Drawing 3 is the explanatory view showing elastic member 3 for waist gathers a which pastes up

disposable trousers on the backseat 9 at the time of carrying out continuation manufacture, and the elastic member 4 for drum section gathers. Between said waist gathers section W and the foot gathers section G, the shape of yarn and the band-like elastic member (the product made of natural rubber or the product made of synthetic rubber, for example, the "operon" by Du Pont-Toray) 4 are installed in elastic member 3a for the waist gathers sections, and abbreviation parallel among backseats 9 and 9, and the drum section gathers S are formed.

[0013] while an elastic member 4 is in the condition (elongation percentage is 1.0 or more-time less than 1.3 times) of not elongating, substantially in the center section N which overlaps the arrangement location of the absorber 51 in said absorption body 5 and pasting a backseat 9 -- the right-and-left both-sides section T1 and T2 setting -- an elongation condition -- an intermission -- or it pastes up completely. The elongation percentage at this time is desirable at the point that 3 or less times gives a feeling of a fit to a drum section by 1.3 or more times.

[0014] The drum section gathers S are the right-and-left both-sides section T1 and T2. It only sets and has elasticity. Moreover, since neither accordion-fold nor a location gap was produced since the elastic member 4 was not contracted in the center section N, and this elastic member 4 is moreover continuously pasted up on the backseat by the anterior part or the posterior part of trousers, the shape of a straight line is maintained and an appearance is formed beautiful. Making the die length of the above-mentioned center section N into 30 - 50%, in order full [of trousers / L / 5 - 80% of] (condition which the gathers section developed) is desirable and to secure the good adhesion to a wearer and urinary absorptivity is recommended. In addition, C1 It is a cutting plane line when separating disposable trousers according to an individual at a next process, and is C2. It is a cutting plane line for opening for the legs.

[0015] In case an elastic member is supplied and pasted up, making the continuous band-like backseat 9 which applied adhesives transport as a means to form by turns the condition [of not elongating] part and expanding condition part of drum section gathers, it is the travel speed of a backseat A center section N, the right-and-left both-sides section T1, and T2 It is desirable to set and to control possible [modification]. T1 pasted up in the state of expanding and T2 **** -- it can be made to be able to run a backseat so that it may become quicker than a center section N, the speed of supply of an elastic member can be made extremely late, and the drum section gathers which will be specified by this invention if both rate is controlled to become reverse can be continuously manufactured in the center section N. [namely,]

[0016]

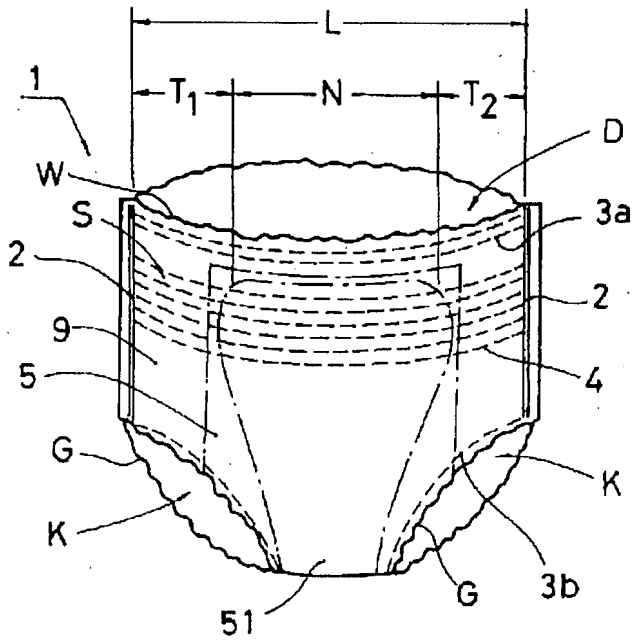
[Effect of the Invention] Since the disposable trousers of this invention are constituted as mentioned above, the elastic member of drum section gathers could be continuously arranged in the trousers order section, respectively, and an elastic member was not expanded and contracted in the trousers center section which does not spoil an appearance and moreover overlaps an absorber, producing accordion-fold [of an absorber] and a location gap was lost.

[Translation done.]

MENU **SEARCH** **INDEX** **DETAIL** **JAPANESE**

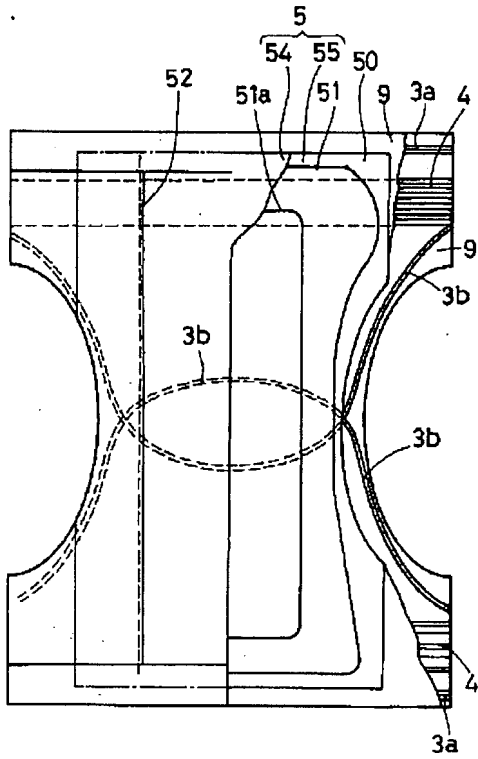
1 / 1

Drawing selection



[Translation done.]

Drawing selection



[Translation done.]